

REMARKS

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-21 are now present in the application. Claim 1 has been amended. Claims 1, 5 and 19 are independent. Reconsideration of this application, as amended, is respectfully requested.

Allowable Subject Matter

The Examiner has indicated that claims 5-15 and 18 are allowed. Applicant appreciates the indication of allowable subject matter by the Examiner.

The Examiner stated that claims 6-15 are allowed because they depend from claims 5 and 18. However, claims 11 and 12 depend on claim 16 (which depends on claim 1), not on claim 5 or 18. Although claims 11 and 12 depend on claim 16, it is believed that claims 11 and 12 are still allowable according to the previous Office Action dated August 15, 2006.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-4, 16, 17 and 19-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Okumura et al., U.S. Patent No. 6,331,844 (hereinafter "Okumura"), in view of Hush et al., U.S. Patent No. 6,069,451 (hereinafter "Hush"). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

In light of the foregoing amendments, Applicants respectfully submit that this rejection has been obviated and/or rendered moot. Without conceding to the propriety of the Examiner's rejection, but merely to timely advance the prosecution of the application, as the Examiner will note, independent claim 1 is amended.

Independent claim 1 recites "the flat panel display including the driving circuit and a display panel being driven by the driving circuit to display image" and "a voltage to current converting unit supplying current of a plurality of levels to a data line of the display panel according to logical combinations of the sampled picture signal from the latch unit, using a current mirror method, wherein the voltage to current converting unit includes a plurality of poly-crystalline switching units formed on the display panel."

Independent claim 19 recites "a plurality of pixel units located on the substrate" and "a data driving circuit located on the same substrate, the data driving circuit including a plurality of current paths, the data driving circuit supplying current of a plurality of levels to at least one of the plurality of pixel units by providing the current from at least one of the plurality of current paths, wherein the current mirror paths are formed on the substrate."

Applicant respectfully submits that the combinations of elements set forth in claims 1 and 19 are not disclosed or suggested by the references relied on by the Examiner. Applicant respectfully submits that the combinations of elements set forth in claims 1 and 19 are not disclosed or suggested by the reference relied on by the Examiner.

The Examiner has correctly acknowledged that Okumura discloses that the voltage-current converter includes a plurality of poly-crystalline switching units formed on the display panel as recited in claim 1, or that the data driving circuit including a plurality of current paths is

located on the same substrate as the pixel units as recited in claim 19. However, the Examiner turned to rely on the teachings of Hush and alleged that Hush cures the deficiencies of Okumura. In particular, the Examiner alleged that Hush in FIG. 1, col. 2, lines 61-67 and col. 3, lines 60-67 discloses that the voltage to current unit having a current mirror circuit and a plurality of switching units is formed on the display panel. Applicants respectfully disagree.

In particular, Hush in FIGs. 1 and 3, col. 2, lines 61-67 and col. 3, lines 60-67 merely discloses that the voltage to current converter 75 having a current mirror circuit is part of the analog to pulse width converter 55, and therefore is part of the field emission display (FED) device 10. Although the voltage to current converter 75 is part of the FED device 10, Hush nowhere discloses that the voltage to current converter 75 (or the analog to pulse width converter 55) is formed *on the display panel* of the FED device 10 or on the *substrate* where the pixel units of the FED device 10 are located.

In addition, under the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element “is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” *Cont’l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). “Inherent anticipation requires that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

Here, although the FED device 10 includes the voltage to current converter 75 and a display panel where the grid plates 35 and 40 are located, it seems the voltage to current converter 75 is formed separated from the display panel itself. For example, Okumura shows that the voltage-current converter is *separated* from the TFT-LCD panel (see *e.g.*, FIGs. 1-3). Therefore, Hush's voltage to current converter 75 is *not necessarily* (and therefore not inherently) formed on the display panel where the grid plates 35 and 40 are located.

Since Hush does not explicitly or inherently disclose that the voltage to current converter 75 (or the analog to pulse width converter 55) is formed *on the display panel* of the FED device 10 or on the *substrate* where the pixel units of the FED device 10 are located, Hush fails to teach "*the voltage to current converting unit* includes a plurality of poly-crystalline switching units *formed on the display panel*" as recited in claim 1 and "the data driving circuit supplying current of a plurality of levels to at least one of the plurality of pixel units by providing the current from at least one of the plurality of current paths, wherein *the current mirror paths are formed on the substrate*" as recited in claim 19.

Accordingly, neither Okumura nor Hush individually or in combination teaches or suggests at least the above-noted features of independent claims 1 and 19. Therefore, Applicant respectfully submits that independent claims 1 and 19 and their dependent claims (due to their dependency) clearly define over the teachings of Okumura and Hush. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

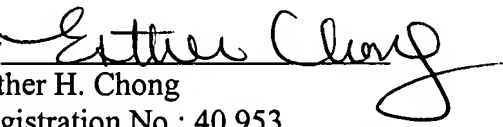
It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: May 9, 2007

Respectfully submitted,

By 
Esther H. Chong
Registration No.: 40,953
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant

